

DOCUMENT RESUME

ED 119 258

CS 501 245

AUTHOR Friedlander, Frank
 TITLE Dehumanized Theories and the Humanization of Work.
 PUB DATE 75
 NOTE 42p.; Paper presented at the Annual Meeting of the American Psychological Association (83rd, Chicago, August 30-September 3, 1975)

EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage
 DESCRIPTORS Higher Education; *Humanization; Human Relations; *Organization; Organizational Communication; *Organizational Development; *Organizational Theories; Psychology; Speech; Theories; *Work Environment

ABSTRACT

This paper argues that current theories and concepts of organization and organization psychology as represented in journals and books are inadequate in dealing with major contemporary behavioral and societal issues. The topics discussed in this paper include the relevance of organization theory; the fragmentation of organization theory (structure and process, role behavior, formal systems, and quantification and simplification); the subjugation of the individual in organization theory (sociology, clinical psychology, industrial psychology, leadership and control, motivation and control, management science, and research); the social power of organization theory; and the social and personal bases for organization theory. (TS)

 * Documents acquired by ERIC include many informal unpublished *
 * materials not available from other sources. ERIC makes every effort *
 * to obtain the best copy available. Nevertheless, items of marginal *
 * reproducibility are often encountered and this affects the quality *
 * of the microfiche and hardcopy reproductions ERIC makes available *
 * via the ERIC Document Reproduction Service (EDRS). EDRS is not *
 * responsible for the quality of the original document. Reproductions *
 * supplied by EDRS are the best that can be made from the original. *

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

DEHUMANIZED THEORIES AND THE HUMANIZATION OF WORK

Frank Friedlander

School of Management
Case Western Reserve University

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY

Frank Friedlander

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

Presented at the Annual Convention of the
American Psychological Association, Chicago,
August 1975

Theories and concepts of organization and organization psychology are to an increasing degree struggling with at least four major issues: maintaining and increasing their social and personal relevance; representing an integrated rather than fragmented approach; incorporating individual needs, rights, and opportunities as an active force in organized society; and suggesting an improved condition rather than merely the way things are happening now. These issues are reflections of the social forces of our time -- forces toward increased relevance, holism, democracy, and action -- forces which underlie heightened values of contemporary society.

It is one of the contentions of this presentation that current theory, as it is represented in recent organization and organizational psychology journals and books, is grossly inadequate in dealing with these behavioral and societal issues. My interest lies mostly in the psychological and sociological underpinnings of our theories and how in turn they reinforce organizational and societal structures. It is as though the very concepts, approaches, and perspectives we utilize in building a theory of organization are so infected with past mentalities and norms that there is little chance that organization psychology theory can help us see or do much about that which is already happening in the current organizational and societal scene.

Technological and bureaucratic thinking have come more and more to rule our professional and disciplinary lives. Technology is one material incarnation of rationalism, since it derives from science; bureaucracy is

another, since its aim is at the rational control and ordering of social life. These two in combination have had a pronounced effect upon the way we think, inquire, and theorize about organizations.

If our concepts, approaches, and perspectives are infected with a past mentality, this mentality is composed of the constraints of thinking in terms of bureaucracies. Like bureaucratic organizations themselves, the bureaucratic mentality behind the theory "thinks and values" in terms of anatomical structures rather than complex human processes, clarity at the expense of ambiguity, vertical rather than horizontal communications, hierarchical control rather than personal and collaborative responsibility, established sets of procedures rather than spontaneity and flexibility, simplification at the expense of complexity, standardization at the expense of uniqueness, stability and durability rather than development and change, specialization and division of labor rather than integrated holistic approaches, maintenance and growth of the system rather than of the individual, and adaptation of the individual to the system's needs rather than the system to the individual's needs.

In one way or another, psychology and organization theory reflect these values -- this mentality -- in most concepts, approaches, and perspectives. This mentality has in turn rendered organization psychology and theory increasingly irrelevant to current human and social issues, fragmented and compartmentalized, representative of established systems, and a conveyor and reinforcer of the status quo condition of organizational society.

The Relevance of Organization Theory

It should be obvious to even the casual observer of the societal scene that dramatic changes have occurred in social and technological environments during the past 20 years, that these changes are having deep impacts on the life styles of people and the nature of tasks. Changes in human life styles and technological characteristics are, in turn, placing severe pressures on the structures and processes within organizations. Yet, few of these major changes are reflected in current organization theory.

Toffler (1970, p. 185) has commented that we are creating a new society, not a changed society --- not an extended, larger-than-life version of our present society, but a new society. We are experiencing a crisis of our current industrial society --- a youth revolution, a sexual revolution, a racial revolution, a colonial revolution, an economic revolution, and a technological revolution.

Organization theory has not reflected emerging shifts in human values --- from a need to be dependent upon a set of policies, norms, and hierarchies to a need to operate more collaboratively or even autonomously (to "do your thing"); from a willingness to accept authority toward a need to share authority; from a positive value of competition as a motivator toward a positive value of collaboration as a motivator; from a strong desire by youth to fill managerial roles toward a strong negative image of management (Miner, 1971); from an emphasis upon organizational relevance to an emphasis upon personal relevance (DeSalvia & Gemmill, 1971); from a willingness to accept policies and norms to an

active effort to challenge them through confrontative action steps. Many of these shifts in values are reflected in the life styles of youth as they enter (or decide not to enter) organizational life, by the demands of blacks and other deprived minority groups for greater organizational and societal opportunities, by women as they realize and act upon a changed vision of their own role. They are reacting against the lack of opportunity for growth, freedom, and equality --- against perceived oppression and conformity to institutional demands and norms --- against organizational missions which they consider either unresponsive to societal and personal needs or antithetical to these needs.

Parallel to these developments in the social environment of life styles and organizational forms, there has been an equally dramatic change in the technological environment and the nature and characteristics of the tasks we work upon. The advancing technology has direct effects upon the social environment and life styles (the pill, television, jet travel, air and water pollution, etc.). It has indirect effects upon the social forms and relationships that connect people and their work. Building a car today requires a far simpler task process than inventing and implementing solutions to urban blight or a wide-spread pollution problem. The latter may involve municipalities, industries, and user systems. The linkages between the changing technological environment and organization structure are receiving increased attention (Burns and Stalker, 1961; Lawrence and Lorsch, 1969). However, the literature has not linked these changes to those in the social and human side of organization.

Thus, organization theory and its psychological and sociological underpinnings seem unconcerned with the newly emerging life styles and the newer social forms of emerging organizations. It seems even less concerned with the behavioral and social issues which precipitate from these changes in life styles and organizational forms.

The Fragmentation of Organization Theory

Organization theory is as yet not a single theory, but a set of often non-comparable perspectives, each of which represents a distinct discipline. Furthermore, organization theory has not been successful in building a set of concepts which integrate a variety of phenomena that occur within the organization --- the structural models of organization with the process models, the technological aspects of organization with the human aspects of organization, role behavior with actual behavior in the organization, formal system explanations with informal system concepts. The repercussions of this fragmentation are compartmentalized and often competing explanations of organization.

Some theorists view the organization as a series of technological phenomena (e.g., management science), and are concerned with such concepts as information feedback, inventory flow, budget allocations, etc.; others view the organization as series of durable structures (e.g. sociology) and focus on such issues as socialization, group norms, deviance, etc.;

still others view the organization as composed of individuals (psychology), and are concerned with their characteristics, personality, motivation, and attitudes. Organization theories based on technological and operational issues seem oblivious to individual differences and reactions to the structural context in which these occur. Theories based on the social structure of the organization seem relatively unconcerned with the technological and human aspects of organization; and organization theories based upon the psychology of the individual generally ignore any effect that the ongoing structure and technology of the organization might have.

Structure and Process

A further source of fragmentation in organizational theory is the dichotomy between the concepts and meaning of structure and process. Classical sociology, for example has utilized the concept of structure in organizations to imply durable and ongoing sets of relationships. The very durability and regularity of the concept implies a rigidity and invulnerability to change. If change is to occur, it will be in the individual entering and working within the organization through conformity to social and organizational expectations. This has caused those interested in organizational change (those in the fields of applied behavioral science, organization development, educational innovation) to focus on the concept of process, both at the interpersonal and intergroup levels. Process connotes greater fluidity and adaptability, and reintroduces the individual as an influencing force in the system. In their effort to view (and have organizational members view) the organization as a set of changing interpersonal and intergroup processes,

however, those in the applied behavioral science fields have slighted such ongoing structural realities of the organization as authority, role, and task activities. Thus, the two concepts represent two unintegrated perspectives of how organizations operate.

The structural approach to organization theory has derived in part from bureaucratic theory (Weber, 1947) and bureaucratic organizations.

Bureaucratic theory conceives and perceives organizations primarily in terms of anatomical structure and vertical control. Organization theory has reflected this mentality in the concepts it utilizes to explain organizational phenomena. For example, span of control, sub-unit size, total organization size, number of levels, ratio of supervisors to total personnel, tall versus flat shape, centralized versus decentralized shape. All of these describe the skeletal properties of the organization. They provide an understanding of the relationships between people and their work only if all the human and technological process in the organization follow established hierarchial procedure accurately and reproduceable. That is, if we know such things as the size of the unit, how many people are in it, how many hierarchial levels are in it, etc., we then can describe the relationships of the technical and human elements because these are standardized, occur regularly, and are controlled by established sets of procedures, policies, and hierarchy. To the extent that organizations are moving away from traditional bureaucratic structure, such components or variables describe the organization in irrelevant ways. Forehand and Gilmer (1964), for example, list organizational properties meriting further

study as (a) ratio of higher level supervisors to foremen, level supervisors to foremen, (b) number of levels of authority from top management to workers, (c) ratio of administrative to production personnel (d) the ratio of maximum to minimum time span of control --- that is, the length of time an employee is authorized to make organization committing decisions on his own initiative, (e) degree of decentralization of defined classes of decision, (f) number of echelons for which "procedural due process of law" has been institutionalized. Porter and Lawler (1965) have already provided an excellent review of the effect of these characteristics on job attitudes and behavior. The variety of studies covered in these reviews, however, leave us with an inadequate picture of person-person and person-work relationships, since they describe only the anatomy of the organization, not the intricate flows and interactions of its human and technological processes.

What the anatomy of the organization is for the organization theorist the organization chart is for the organization manager. A glance at the usual organization chart depicts the lines that connect the working parts of the organization and the positions which are thus connected. The actual behavioral processes that occur as actual people in the organization work and live and interact are not visible; nor are the human motives, needs, and values that energize these behavioral processes.

Role Behavior

If the anatomy of the organization is inadequate in explaining and understanding its processes, so also is the concept of role inadequate in describing human behavior and interaction in organizations. The concept of role is an invention of social theorists to describe the activity a job incumbent would engage in if he were to act solely in terms of the normative demands upon someone in his position (Goffman, 1968). As such, the concept reflects the demands for conformity, regularity, and dependability required in a bureaucratic organization. The concept is not so different from that of clusters of job descriptions which are so frequently used in organizations as methods of standardizing job functions. But since role never quite describes what an individual person does, social/organization theorists use the concept of role performance or role enactment to reflect the actual conduct of an individual. The lack of congruence between a role and behavior become an indicator of deviance for the theorist and an indicator of non-compliance for the organization manager.

Formal Systems

Just as the concept of role has been insufficient in describing actual behavior in organizations, so has the concept of the "formal system" been inadequate in describing the social interactions which occur in small face-to-face organizational groups. Thus, organization theory needed to invent the concept of "informal" to describe more fully and accurately structures as they actually occurred through the intricate social networks within the organization. Events and relationships as they were designed and should be

were referred to as the formal system. Note that the formal system then becomes the bureaucratic structure in terms of its prescribed rules, regulations, and policies; the informal system is the residual --- that which cannot be explained by bureaucratic theory. It could be labeled as disobedience, non-conformity, or non-compliance. Bureaucratic theory thus invented an appendage to account for behavior which could not fit into its framework.

The concept of formal organization system does not successfully account for a significant proportion of human behavior in organizations, just as a bureaucratic structure does not successfully describe or control human behavior in organizations. From the standpoint of organization as a formal system, Selznick notes, for example, that persons are viewed functionally in respect to their roles as participants in assigned segments of the system. "But in fact individuals have a propensity to resist depersonalization, to spill over the boundaries of their segmentary roles, to participate as wholes. The formal system..cannot take account of the deviations thus introduced (Selznick, 1948, p. 26). Obviously, human beings, despite the roles assigned to them, tend to emphasize their self interests as whole persons rather than as impersonalized role players. Bernard (1948) notes that formal organizations once established must create, if they are to operate effectively, informal organizations as a means of communication and cohesion, and as a way of protecting the integrity of the individual against domination by the formal organization. But if we are building a theory which limits itself to two incompatible goal structures, organization theory may be guilty of reinforcing a self-fulfilling prophesy, rather than leading the way out of this cycle.

The formal organization, as a concept, is a direct descendant of the concept "bureaucratic structure." As it became apparent to theorists that formal organization no longer (if ever) described the actual behavior in organizations, new concepts such as role performance and informal organization were invented to shore up the validity of the initial concept. Obviously the formal and informal organizations are not two separate organizations. Organization theorists have reinforced this dichotomy by their need to account for the spillover from a single set of concepts. The result is that the dichotomous concepts which theorists use reinforce and legitimize a parallel compartmentalization in the minds of most managers of bureaucratic organizations.

As modifications have occurred in bureaucratic structures and as some of the newer organic structures have emerged, the formal-informal system dichotomy becomes less and less relevant. Indeed, one of the major benefits of organic structures is that they unite these two systems into a single phenomenon. The so-called informal system becomes a major source of energy for legitimate activity, for decision making, for task determination, and for conflict resolution. Theorists who cling to the bureaucratic mentality using formal and informal system concepts deter a full understanding of these newer structures, and contribute to fragmentation of a unified set of explanations for organizational behavior.

Quantification and Simplification

Two additional themes in the bureaucratic mentality have had widespread repercussions upon the concepts, approach, and perspectives used in organization theory. These are the bureaucratic focus upon quantification and simplification, which have been inter-related phenomena during the past development of both organizations and organization theory. The more simple the task, the more easily its operations can be quantified and the more accurately its completion can be gauged in quantifiable terms. The problem lies in our tendency to continue to use numerical indices of highly complex processes and outcomes. Thus, we tend to use criteria such as number of items produced, when quality of ideas might be more relevant; we use grade point averages in educational systems when learning how and what to learn might be the outcome; we use age as an indicator of maturity (when to vote, to be responsible, to enjoy more freedom and autonomy), and similarly age becomes the criteria of when one should be retired; we use number of publications as an indicator of professional stature rather than skills in practice and application; we use number of dollars earned as a measure of success throughout one's life rather than personal growth, and GNP (how much people produce for the marketplace) as a measure of our country's health rather than its social development. Many of these criteria were more relevant some fifty years ago when tasks and social condition were drastically different. GNP, for example, was an invention of the 1930's, when the problem was to enable people to do something, even menial labor. It was fairly appropriate during World War II, when the nation put a premium on producing as much as possible.

But concepts such as GNP are increasingly irrelevant as the nation and the majority of its people are concerned primarily with the state and development of personal and social growth. Toffler (1970, page 220), for example, has asked: "What does 'productivity' or 'efficiency' mean in a society that places a high value on psychic fulfillment?"

The emphasis upon quantification of organizational life has stemmed primarily from the conditions which prevailed when bureaucratic structures were particularly relevant to our social, economic, and technological processes. During the first half of the 20th Century, organizations were gearing for mass productivity. Efforts were made to alter tasks to the simplest level. Scientific management (Taylor, 1947) reflected these needs and tendencies, using quantification and simplification models.

Many of these models are still with us today as we attempt to predict, understand, and explain organizational life. All of the indicators of organization structure noted earlier (span of control, ratio of supervisors to total personnel, size of organization unit, etc.) are clearly efforts to quantify and simplify complex organizational processes. It is also obvious that most studies which attempt to construct an organization theory are quantitative in nature, and thus tend to over simplify organization complexities, and omit phenomena which are not readily quantifiable. This is particularly so for the selection and conceptualization of criteria of organizational effectiveness. It is also noticeable in a number of studies in which process or structure variables are related to task performance. In practically all of these studies, an extremely simple task is assigned to subjects. Since simple tasks are generally performed best in a bureaucratic structure (Lawrence & Lorsch, 1969), it is quite natural that in experimental situations in which simple tasks are assigned to subjects,

tasks performance will be higher in bureaucratic than in participative structures.

In a broad sense, the focus upon quantification and simplification which is relevant to bureaucratic structures has been inappropriately applied to a broad spectrum of current organizational and life issues. This has resulted in the decreased relevance of organization theory. To the extent that organization theory represents a model for today's managers, it does so by reinforcing practices which are increasingly outmoded.

The Subjugation of the Individual in Organization Theory

Organization theory has generally subjugated the individual human being in favor of the larger organizational context in which he works. Sociological themes underlying organization theory have considered individuals as serving the functional needs of institutions, and institutions as serving the functional needs of society. The individual is justified in the context of the organization, and the organization is justified by contemporary society. Applied psychology takes a somewhat more active role in helping the organization find, select, promote, and train the individual to adapt to its needs. Its theories of leadership and motivation abet this process. The management sciences are equally active, but more concerned with manipulating technological than human issues. Systems and information theorists, for example, focus upon developing systems which will give the manager information he needs to manage and control. None of these varied approaches

attempts to optimize the welfare of the individual, unless this happens to coincide with the welfare of the organization. In fact, an implicit assumption of all three approaches is that activities which benefit the organization also automatically benefit the individual. When there is a clear trade-off between individual and organization, the clear choice is toward the latter. Thus, most organization theories clearly place a higher value on the organization than on the individual person.

The social theories (sociological, political, and economic) which underly organization theory as a rule stress equilibrium, stability, and the mechanisms of social control. The basic model of society is one of the social system constantly seeking to reach "dynamic equilibrium". Social change may create social strains and psychological stress; but this is acceptable if it does not upset the basic social equilibrium. Kenniston (1971) notes that the major effort of liberal sociology is to explain how this equilibrium, harmony, and lack of conflict has been invoked. "Between social strain and social disequilibrium stood a series of 'mechanisms of social control' ranging from the police force to the practice of psychotherapy, which served to reduce societal tension by resocializing or isolating deviant individuals and by encapsulating or co-opting deviant social movements."

From this perspective, organizations are seen as major arenas for socialization of the individual to societal norms. In a similar manner, conformity to social expectations is seen as the only effective motivation (Pugh, 1966). Motivations derived from within the individual rather than from the organization are generally ignored.

Sociology

A prime focus, then, for sociological theory and research is the effect of the organization's demands and expectations upon individual behavior and personality. Merton (1940), for example, listed a number of research problems which he considers of paramount importance: To what extent are particular personality types selected by various bureaucracies? Does holding bureaucratic office increase ascendancy traits of personality? What are the mechanisms for obtaining emotional commitment to the correct enforcement of the rules? Note that these are all concerned with the degree to which the organization is successful in effecting the individual. Apparently the most that an individual can do if he cannot or will not conform is to leave the organization.

When the individual does feel antagonistic to the bureaucratic organization structure, he is invariably blamed or diagnosed as selfish, irrational, or even neurotic. Thompson (1961), for example, notes that there will always be individuals who cannot understand the reasons behind impersonal procedures and systematic ways of solving problems, and they view rational procedures as barriers to efficient organization and as unnecessary frustrations. He labels such people as bureauctics and diagnosis their reaction to organization as "bureausis", attributing bureausis to the "dysfunctional persistence of childish behavior patterns" (Thompson, 1961, pp. 173-174.).

"Bureautics fear...bureaucracy because they cannot personalize it. They feel powerless in relation to it, on the 'outside' (of it)... There are many things they are entitled to, but cannot get because this monstrous impersonal world does not respond to their desires. They crave the response to their needs that they used to get in childhood, an immediate and tender response from everyone...He interprets justice as getting what is his by rights. (But) for him what is his by right and what he wants are easily confused."

For those individuals who resist or resent the red-tape which predominates bureaucratic organizations, Gouldner (1952) has identified several diagnostic categories: (1) an emphasis upon the sacredness of privacy, (2) the belief in equality, (3) a sense of powerlessness, (4) suspicion and the inability to defer gratification, (5) inability to gain insight into the interrelations of events in a given situation, and (6) a sense of frustration, alienation, and resentment. The emphasis again is upon the individual and his adaptation problems, rather than upon the organization as a cause of these problems.

In a recent study in which the stated purpose was to identify the organizational situations which encourage an opposition to bureaucratic procedures (Rossel, 1971), the main conclusion is that a negative orientation to bureaucracies is a "symbolic expression of frustrated mobility needs characteristic of those who perceive the unlikeliness of continued advancement within their organization." Again, the focus is upon the individual and his frustrations, rather than organizational conditions.

In all three of these references, the organizational conditions which might well be contributing to the frustration and negative orientation of individuals is assumed blameless. No effort is made to research these conditions, nor to extrapolate theories in which the organization structures might be changed, or in which a different kind of organization structure might reduce these frustrations which individuals experience. Analysis is repeatedly focussed upon the victim of the bureaucratic structure. His responses to this structure are diagnosed in terms of inappropriate or deviant behavior---irrationality, selfishness, neuroticism.

Clinical Psychology

Psychiatry and clinical psychology have joined in the professionally acceptable game of "blaming the victim" for organizational and societal problems, rather than the organization or society as a cause of the problem. In an effort to explain the behavior and values of hippies, Adler (1968) describes them as essentially neurotic.

The hippie:

"fears diffusion and depersonalization...seeks out haptic irritations to overcome boredom and insensibility...plays at throwing away what is lost to maintain the illusion of self-determination and freedom; or through 'trips' to the interior, through pantheistic fusion, or through sadistic and masochistic ventures he attempts to demonstrate a capacity to control self and objects and to reinstate both self and object constancy. The sense of his isolation and separation leads him to see the distal world as alien and detached from himself" (Adler, 1968).

In another example, Brown (1968) asks the question, "Who are the alienated youth?", and then answers:

"They are the underachievers in education, the underemployed in industry, the school dropouts, the unemployed, the delinquents. ...The results of alienation are mostly poverty, delinquency, and illness. Alienation thwarts productivity, demands the sense of self, and renders the individual an undue burden to his society." (Brown, 1968)

Note, in this quote, the direction of causality of the problem: from diagnosis of the individual (as alienated, unemployed, delinquent--- a dropout) to a social problem (poverty, delinquency, illness) to thwarting (organizational) productivity --- all of which results in the individual being an undue burden to his society. Brown apparently chooses not to reverse the direction of causality: that societal issues (poverty, delinquency, illness) causes alienation, which causes individuals to underachieve, be unemployed, and become delinquent --- and that his society is a burden to the alienated individual.

These indictments of the individual as a cause of societal issues leads quite naturally to the role of psychiatry and clinical psychology in "helping" the individual through therapy and counseling. Psychiatry and clinical psychology thus serve side-by-side with the police force in reducing societal tension by resocializing or isolating deviant individuals and by encapsulating or co-opting deviant social movements.

Industrial Psychology

Industrial psychology has played an active role in using its technology to serve organizations. Like sociology and clinical psychology, its efforts have generally helped to maintain bureaucratic organizational structures at the possible expense of the individuals involved. Industrial psychology has utilized sophisticated test construction and psychometric methods to bear upon the appraisal, motivations, and training of organizational employees. But these have all been to the benefit of the organization rather than to the individual. They have invariably subjugated the individual to the organization's needs.

It should be obvious that such efforts are sponsored by and conducted for the benefit of the organizational system, rather than for the individuals being screened and tested. Tests and other appraisal techniques are a management tool (although conducted by psychologists) to obtain greater information about the individual. Through these procedures, the organization has greater control over its decisions for accepting and promoting

employees. There is little similar information provided for the individual which affords him a better insight into the organizational system, or help to give him greater control over the decision to enter the organization. Psychologists, for example, do not set up procedures for examining the organization with sophisticated testing systems, and then report back this data to those who think they want to work for that organization. The procedures as they currently stand fit well with theories of bureaucracy which stress unilateral and impersonal decision rules, and authority for decision and control vested in the hierarchy.

These testing and appraisal procedures, furthermore, are supposedly validated upon high performance within a bureaucratic system. The organization is thus allowing only those people in who will fit best with the authority and control structure. In this way, psychology is serving to reinforce bureaucratic structures as they currently exist.

Appraisal and selection is but one of the processes by which organizations determine who is fit to enter the organization, and where that fit should occur in the organization. Since selection processes are far from perfect (selection techniques have never accounted for more than 25% of the variance of performance), psychologists and educators have provided additional procedures which for the most part ensure that individuals will fit the organization's structural needs. These come under the general heading of training and development programs, and encompass such things as education of the organization's policies, values, and philosophies; training in the ability to plan, direct, measure, and

control organization efforts; human relations and leadership training on how to handle people with "consideration and participation", and yet have them do what is needed. Underlying these training and development programs, is a perspective of two key concepts, leadership and motivation, which is highly influenced by the bureaucratic mentality.

Leadership and Control

The very concept of leadership implies a one-up one-down relationship in which the one-up exerts social influence over the members of the group. "A leader, then, is a person with power over others who exercises this power for the purpose of influencing their behavior" (Filly and House, 1969). Note here the emphasis not only on the power of the person, but the implied power in the role of leader.

Leadership is frequently conceptualized as a durable set of roles, located spatially in the upper regions of the organizational hierarchy. Power and influence are derived from the role and its location, as well as attributes of the individual occupying the role. With an increasing awareness during the past twenty years of participative management methods (Bennis, 1966; Likert, 1967), organization theory has faced (but not confronted) a dilemma: how to maintain concepts of the leader within the confines of a bureaucratic mentality, and yet incorporate processes in which others (presumably subordinates) would be participating. The result is a concept of participation which reflects the bureaucratic mentality, fits almost neatly into most bureaucratic structures, and treats participa-

tion as a bureaucratic process directed and controlled by the leadership. Management-by-objectives is perhaps one of the best examples of control-by-participation. The role labels of leader and subordinate belies any integration of bureaucratic and participative management theory, despite the ingenious but paradoxical term "participative leadership".

If the leader is to utilize participative methods while still maintaining his overall control and direction, participation becomes a method of inducing greater, not less, bureaucratic control. By increasing the subordinate sense of involvement (but not his actual self-direction and self-control), the leader builds into his subordinate a false sense of leadership. Essentially, participative methods can thus become one more manipulative tool which the leader uses to increase his influence and power.

Contrast this concept with one in which leadership is potentially dispersed throughout the organization, resides in the technical and or human resources wherever these may reside, and changes constantly depending upon the task at hand. In their study comparing bureaucratic and organic structures, Burns and Stalker (1961) see the necessity of providing such a broad definition of the concept of management early in their study. "If by 'management' is meant a special category of individuals in a concern, it has extremely ill-defined limits . . . (management) can involve everybody in a concern at different times and different respects." (Burns and Stalker, 1961, p. 13). This perspective emphasizes a need for greater focus upon the changing totality of relationships between persons, groups, roles, and tasks within the entire structure of the organization.

Motivation and Control

— Theories of motivation are integrally related to this conceptualization of leadership. Since the Hawthorne studies (Mayo, 1949) when it was discovered that technological issues were not the only determinants of productivity, the concepts of job attitudes and motivation (and the older concept of morale) have been of growing concern in organization theory. There followed a period of about 20 years in which psychology expended much effort in examining and surveying employee attitudes toward work. During much of this time, motivation was conceptualized as an extrinsically determined force (e.g. ^{the result of} supervisor's style, working conditions, financial rewards, etc.)---something the organization had control over. Much effort was therefore placed upon finding out which attitudes were highly correlated with productivity. Then the organization could offer these rewards, and productivity would hopefully increase. Thus, motivation and job attitudes were studied as a method of increasing control and influence over employees, with the never-ending promise that higher motivation or more favorable attitudes would lead to higher performance. Today, managers still express a keen interest in the topic of motivation---"how can I increase the motivation of my subordinates?" And invariably, a brief discussion reveals that the underlying question is "How can I get my subordinates to do what I want them to do?" Motivation, then, is seen as an external source of energy, which must be implanted or installed in employees.

During the past 15 years, however, there is increasing evidence that external (organizationally determined) motivators have limited effect. Studies by Herzberg, Mausner, & Snyderman (1959) and others indicate that most rewards and incentives that the organization system can directly

supply to individuals (increased compensation, better working conditions, more favorable company policies, etc.) are less potent than opportunities in which the individual can fulfill his needs for accomplishment, challenge, and involvement in the work itself. Motivation, then, derives from within the individual. It is a personal decision and action. The best that an organization can do is to provide the conditions and opportunities for people to become involved in their task, and thus to become motivated.

The notion that motivation is inner-directed and inner-controlled clearly contrasts with the bureaucratic mentality of direction and control of employees' behavior through an external reward and incentive system. Note in the following quotes, the intricate relationship between control and motivation as evidence of the bureaucratic mentality -- how it weaves theories relevant only to bureaucratic structures and only to its assumption that people are passive and uninformed:

As a managerial function, control can be defined as the selection of guidelines for the decisions of lower participants as well as the establishment of rules to enforce conformity to the standards of performance which are set by superiors. ...the hierarchy of jobs and authority is designed to reflect the intentions of the executive officers. However, the complexity of large, specialized organizations requires that participants be permitted some choice in the actions they take and in the way they perform their assigned tasks. Since this discretion must prevail, it is necessary to guard against decisions which are only partially effective or which are contrary to the best interests of the total enterprise. This is done by creating a complex regulatory system which pervades all elements of the organization. ... If control is to approach its ideal use, it must perform three functions: (1) evaluation, (2) enforcement, and (3) motivation. ... Managers fail to pay sufficient attention to the monitoring processes which must be used to gather, sift, and evaluate information pertinent to the activities to be governed. Frequently even less attention is devoted to constructing a system which is designed to motivate desirable forms of behavior. Failure to give sufficient weight to each of these functions can lead to the creation of dysfunctional control procedures.

When evaluation and enforcement operate jointly, the control system carries with it the visible means of reward and punishment for member actions. Hence it becomes a primary motivational device. (Hill and Egan, 1967, pp. 506-507.)

In a bureaucratic structure, the traditional concepts of leadership and motivation are necessary because the underlying assumption of such structures is that most of its people are relatively uninformed and passive. Therefore they need the direction and control of responsible leadership. For the same reasons, they need to be motivated (controlled, influenced, directed). The fascination with leadership theory and training, and with motivation by organizations and organization theorists results from an outmoded effort to bolster and reinforce bureaucratic structures and bureaucratic theory---structures and theories which are increasingly less relevant to the complex tasks that organizations undertake --- and to the orientations of the human beings of which it is composed.

The basic thrust of leadership and motivation, as it exists in current organization theory, is to subjugate the individual to the organization. The application of this thrust in terms of appraisal and selection, and training and development is the socialization processes by which employees are influenced, shaped and molded. As Kenniston (1971) has noted, these approaches assume the plasticity or malleability of human nature. They provide a unilateral influence and control mechanism over employees by the organization. Psychology, in this sense, provides its technology and theory for organizational socialization of the employee, but provides no corresponding influence and control mechanism for the employee over the organization. This is as it should be if one accepts the bureaucratic mentality of authority and control over individuals as vested entirely in the hierarchical structure, wants to use his technology and professional skills to maintain and foster this condition by subjugating the individual to the organizational cause.

Management Science

The management sciences (including operations research, systems theory, information theory, etc.) tend to think in terms of task performance. These approaches either present management with sophisticated solutions to complex problems, or invent systems which provide the manager with the information he needs in the quickest, most efficient, and complete manner possible. As such, these efforts parallel those of industrial psychology which provides test and appraisal data to the manager for selection and promotion decisions. The process management science uses to collect data and analyze problems, as well as the nature of its recommendations are intended to benefit the organization as a system and management as part of that system, rather to benefit individual employees. Indeed, many of its recommendations may dehumanize the work through simplification or through constructing functions which audit employee performance and divulge the data to management. These efforts unilaterally reinforce hierarchial control, decision making, and authority, and thus reflect bureaucratic concepts and values.

Unlike the psychological contributions to organization theory, the management sciences tend to ignore the human being in the organizational system rather than socialize him into it. Human limitations are taken into account in designing technical systems, but human preferences, needs, and values are seen as subverting that system. The assumption is that human beings should adapt themselves to the requirements of an effective system. The need to design systems around human limitations, to demand that humans adapt themselves to the requirements of the system, and the

resultant depersonalization are also assumptions inherent in bureaucratic theory and practice. These all subjugate the individual and his needs to the organizational system and its needs.

Research

An activity that has one of the most pervasive effects on organization theory is the research process which underlies it and contributes toward its construction. The hierarchical structure and processes that occur in most behavioral research situations between researcher and subjects is essentially bureaucratic. The structure of the research situation cannot help but have a severe impact upon the research findings. It is suggested here that a bureaucratic research process leads to findings which reinforce bureaucratic concepts --- and an organization theory which is essentially a theory of bureaucracy.

Most research situations can be described in terms of clear role differentiation and task assignment, hierarchical authority and control, simplification and limitation of task. Argyris (1968) outlines the characteristics of rigorous research as: (1) the research is deliberately undertaken to satisfy the needs of the researcher; (2) the pace of activity is controlled by the researcher to provide him with maximum possible control over the subject's behavior, (3) the setting is designed by the researcher to achieve his objectives and minimize possibly contaminating objectives of the subjects, (4) the researcher is responsible for making accurate observations, recording them, analyzing them, and reporting them, (5) the research conditions are rigorously defined so that

he or others can replicate them, and (6) the researcher can systematically vary the conditions and note the concomitant variation among the variables.

These conditions are remarkably similar to those occurring in bureaucratic structures. Management (researcher) defines the worker's (subject's) role as rationally and clearly as possible, provides as little information as possible beyond the assigned task, and defines the inducements for participating (e.g., a requirement to pass a course, a financial remuneration, a commitment for the advancement of science and knowledge). Clearly, the researcher is in an authority role, and is attempting to control the subject in terms of performing some task (filling out a questionnaire, being interviewed, performing a simulation, etc.). Attempts are made to standardize the task for subjects and to standardize (or control) the research situation. Finally, most behavioral research is designed to provide data in one direction; namely, from the subject to the researcher. The subject is aware that his participation in the research allows the researcher to become wiser about him without making him wiser about the researcher. Rieken (1962) has described this as the one-sided distribution of knowledge. Furthermore, the subject is not permitted to respond to the situation as a whole person. The rules of the situation suggest that he respond only by performing the task assigned to him (e.g., divulging his personal response to the items asked of him on the questionnaire form).

Thus, in most research situations the subject is subjugated to authority and control, role differentiation, communication limitation, extrinsic incentives, task simplicity and standardization. These, of course, are the very earmarks of a classical bureaucratic structure. It is quite natural, then, that the organization theory derived from this research would reflect, reinforce, and be limited to classical bureaucratic concepts and thinking. More collaborative research designs might well contribute to a totally different set of findings, and to a very different theory of organization.

The Social Power of Organization Theory:
What Is Ought To Be

Organization theory has perhaps been most deficient in its insistence upon analyzing and describing the status quo. It thereby reinforces this status quo, and implicitly represents the values of the status quo. It's disciplinary components (e.g., sociology and psychology) in particular shy away from either theories which involve planned change or theories which suggest that basic change is needed. These issues are related to the growing irrelevance and fragmentation of organization theory as discussed earlier. But they are also a separate issue, and deserve separate discussion.

The social sciences have historically been more involved in understanding systems and system maintenance than in systems change (Wilson, 1974). Their theories have essentially been maintenance and repair theories.

What is needed now are theories of transformation. But this also implies that we be involved in transformation ourselves -- both in a personal sense and in a professional sense.

Theories of organization have for the most part described what is (the current condition) or what has been, and avoided what ought to be or what might be. This position is defended on the basis that status quo descriptions are more scientific and more value-free. Such a defense, however, does not seem to recognize that descriptive approaches to organization theory reflect value judgements just as much as normative approaches. By describing and analyzing organizational behavior as it currently exists, organization theorists are providing a rationale for current practice, concepts, and structures --- and implicitly inhibiting a rationale for alternative practice, concepts, and structures. Just as organization theorists seem to assume that conformity to social expectations is the only effective motivation for organization employees (Pugh, 1966), so also they themselves seem to act out this assumption in constructing organization theories which conform to the status quo.

Organization theory's preoccupation with descriptions of past organizational processes probably accounts for the fact that research invariably tends to follow rather than precede social, behavioral and organizational innovations. Organization theory rarely leads the way by suggesting new organizational practice; rather it is new organizational practice which leads the way, with organization theory then following with evaluative research. Furthermore, the research studies have tended to evaluate these innovative processes in terms of effectiveness or ineffectiveness, rather than suggesting modifications or alternatives. Examples of evaluative research following innovative organizational

processes include studies of management by objectives, sensitivity training and organization development, training programs for hard-core unemployed, and job enrichment. Research in organization theory has thus not had the effect of promoting innovation in organizations.

Action programs like the above have not generally received much attention in organization theory. This is part of the schism in organization theory between research and action. Research which helps explain, understand, and predict current organizational phenomena is respectable; research which is integrally linked with planned action programs is suspect or at best peripheral. The acceptable sequence in organization theory research seems to be (1) the identification of a problem or issue, (2) research on it, and (3) analysis of the problem or issue. This is a linear sequence, with few of the findings from the analysis finding their way back to doing something about the problem or issue. The infrequently used alternative might involve the first three steps as already mentioned, plus (4) action steps based on the analysis, (5) analysis of the repercussion of the action steps upon the initial issue or problem, and (6) identification of revised issue or problem, (7) research on it, etc. This is a non-linear action-research-feedback cycle in which research, analysis, and action are integrally related parts of the exploration and change process within organizations. The proliferation of static research designs has resulted in static organization theories, which offer little more to organizations than sophisticated analysis and terminology of what managers already know.

Suggestions and recommendations for changed organizational practice

have been forthcoming from some organization theories. In almost all such cases, however, these recommendations have not been examined in the study, but instead have emerged post hoc from the study. They are suggestions for action derived from non-action research. They are recommendations for change based on an understanding of the static organization. They lead to theories about changing, but not to theories of changing. Implications and recommendations for change from these studies are therefore not valid.

Fiedler's theory of leadership (1967), for example is a particularly sound set of conceptualizations, based on a large number of empirical studies, performed over a period of 15 years. It has a high explanatory power for the complex phenomena of leadership-situation interactions. Essentially the theory states that the effectiveness of a group is contingent upon the relationship between leadership style and the degree to which the group situation enables the leader to exert influence.

In his effort to make the theory of more practical use to management, Fiedler (1967, pp. 248-256) recommends that leaders be recruited and selected to match specific situational characteristics. He further recommends that situational characteristics be changed to match the leader's style.

But Fiedler's studies were not designed to test the supposition that reassigning a leader or changing the situation to afford a better leader-situation match would create greater effectiveness. In short, there were no studies in which attempts were made to change either of the major independent variables.

There is little doubt that studying leadership-situational interactions by attempting to change one or both of these variables would have produced a whole new set of learnings about leadership, group situations, and the implementation of changes in these. It might also, of course, have provided some valid data to back up Fiedler's recommendations to organization managers.

Fiedler's theory is cited here because it is one of the strongest to be presented during the past several years. There are of course myriads of studies and theories which are weaker. Yet practically all of these are studies of static organizational situations, of which some provide recommendations for organizational change.

To the extent that organization theories are constructed upon studies which point to or recommend changes in organizations, and yet have not actually examined the implementation of these changes, they are of questionable validity. They may be valid in describing what is currently effective, but they are not valid toward any theory which lays claim to increasing organizational effectiveness.

The Social and Personal Bases for Organization Theory

The justification for an organization theory is its social and personal relevance and its potency as a source for human betterment. Knowledge and research from the various disciplines are merely tools for obtaining these conditions.

The descriptions in this paper of organization theory, its historical antecedents and its current repercussions, call for a

dramatic change in concepts, approaches, and perspectives utilized in the field of organization theory. This change is toward increased concern and emphasis with the human experience that is the source of organization theory; with the complexity of human and social processes in organizations; with lateral, matrix, and other non-hierarchical structures; with personal and collaborative responsibility in organizations; with the uniqueness of individuals; with development and change; with integrated holistic approaches; with growth of the individual in addition to growth of the organizational system; and with adaptation of the organization to the needs of the individual.

Organization theory must become more relevant to a wider segment of current personal and societal issues --- to the changing life styles and issues represented in youth, blacks, women, etc. --- to movements against established organizations (Nadar, Alinsky, etc.) and movements toward new forms of organization (communes, marital forms, etc). It must broaden its focus from the traditional life styles and organizational forms to newly emerging ones --- from the trailing edge of relevance to the leading edge.

Needed also in organization theory is an integration of concepts which reflect parochial disciplinary perspectives of similar phenomena --- the traditional concept of organization structure with the concepts of interaction and behavioral processes in organizations. It must widen its concept of organization structure to include non-bureaucratic, non-hierarchical, organic relationships in which authority, decision-

making, goal setting, and conflict resolution emerge from and are determined by the work team and the individual, and not just from and by the hierarchy --- where influence and authority is dispersed throughout the organization, depending upon skill and knowledge rather than upon formal role or office.

Abstracted concepts such as role and formal system which are intended to account for phenomena as they "should be" need integration with events and behavior as they actually occur. Needed also are ways of understanding and describing human, social, and organizational phenomena which validly represent these complexities, and do not reduce them to skeletal, quantitative, standardized descriptions. Organization theory needs more of the experience that is the source of organization theory.

If it is to represent more than the interests of the organization and its hierarchy, organization theory must give more weight to the human and social needs of people in organizations. It must focus more on the qualities of organizational systems which deny these needs, and how to adapt the organizational system to greater development and growth of its people. It must add humanization to its goals of socialization and efficiency, and a sense of organizational plasticity to its current sense of human plasticity. It must examine and test these issues in research situations in which researcher and subject jointly determine and explore rather than ones in which the researcher unilaterally determines and controls.

Finally organization theory must become aware of and act upon its role in a rapidly changing society. The social power of organization theory is its force or energy to bring about, sustain, or prevent change in organizations. If it portrays in its theories organizational structures and human life styles as they were yesterday, it is acting as a change force toward yesterday's practices. If it represents primarily the perspective of bureaucracy in its theory, it is taking a value position in favor of that organization structure. Because most theories of organization are not explicitly concerned with human, social, and organizational change, they implicitly reinforce the status quo condition.

The variety of life styles, technologies, and structures in current organizations suggests complex contingency theories rather than "one best way" theories or sets of principles with many "shoulds and oughts". Organization theory needs to develop models which take into account idiosyncrasies and varieties of people, their tasks, and their relationships, resulting in frameworks which suggest alternatives, freedom, and choice rather than sets of constraints.

Far greater emphasis upon studies of planned change need to occur in the research which underlies organization theory. Research which extrapolates suggestions for change even though static conditions were studied is of questionable validity. It may be valid in describing what is currently effective, but it is not valid toward any theory which lays claim to increasing organizational effectiveness. Such studies can become more potent if they utilize an action-research-feedback-action cycle in which the findings of the study are applied directly back to doing something about the issue which suggested the research --- action is then taken using the research results, and the repercussions of the action are again researched, etc.

We need to develop theories which confront the status quo of organized life as it exists today. How do we develop theories which confront the work ethic -- that work is the most important phenomenon -- that organizations are only worth being a member of, being a consultant to, or only worth studying in connection with work and improving performance? How do we develop theories which challenge and revise the current meaning of "responsibility", with its limiting and constraining connotations -- which will challenge the idea of organization as it currently is conceived -- as an hierarchical series of layers with each layer responsible to the next higher layer and responsible for the next lower layer -- with control by the next higher level and control of the next lower level? How do we build a theory which will transform institutions and governance structures into ones which will nurture and not destroy, within which individuals can freely choose alternatives that enrich themselves and others? How do we take the victim of organizational life and transform him into something that he is not: an active participant in the elimination of the social and organizational conditions that created his current frustration and alienation?

If these are frightening questions, let me add one more -- a meta-question upon which the others rest. How do we as individuals confront the very theories that we have been trained to believe in and accept? Clearly we have been trained and socialized according to certain values, perspectives, forms of thinking, concepts, and methods. The body of knowledge that we possess not only certifies us as trained and competent,

but ensures that we have a deep ongoing investment in that knowledge, that set of values and perspectives. It substantially defines who we are as a person and as a professional. When perspectives and theories are questioned, you are not simply attacking the books I have read, you are attacking me. How can we become aware of the contradictions that exist between the theories we have been trained to believe and the concrete social and personal conditions that exist in organizations today? Perhaps the problem of humanization is not out there in the world of work -- it is in us as behavioral scientists.

REFERENCES

- Adler, N. "The Antinomian Personality: The Hippie Character Type", Psychiatry, 31, 1968, 325-338.
- Argyris, C., "Some Unintended Consequences of Rigorous Research", Psychological Bulletin, 70, 1968, 185-197.
- Barnard, C. I., The Functions of The Executive, Cambridge, Mass: Harvard University Press, 1948.
- Bennis, W., Changing Organizations. New York: McGraw-Hill, 1966.
- Bennis, W. & Slater, P., The Temporary Society, New York: Harper & Roe 1964.
- Blake, R. R. & Mouton, J. S., The Managerial Grid, Houston: Gulf, 1964.
- Brown, W. N., "Alienated Youth", Mental Hygiene, 52, 1968, 330-336.
- Burns, T. & Stalker, G.M., The Management of Innovation, London: Tavistock Publications, 1961.
- DeSalvia D. N., & Gemmill, G. R. "An Exploratory Study of the Personal Value System of College Students and Managers", Academy of Management Journal, 14, 1971, 227-238.
- Fiedler, F. E. A Theory of Leadership Effectiveness, New York: McGraw-Hill, 1967.
- Filley, A., & House, R., Managerial Process and Organizational Behavior, Glenview, Ill: Scott Foresman, 1969.
- Forehand, G.A. and von Gilmer, B., "Environmental Variation in Studies of Organizational Behavior", Psychological Bulletin, 62, 1964, 361-382.
- Goffman, E., Where the Action Is: Three Essays, London: Allen Lane Penguin 1968.
- Gouldner, A., "Red Tape as a Social Problem", In H.C.Selvin (eds.), Reader in Bureaucracy, Glencoe, Ill: Free Press, 1952, 410-418.
- Herzberg, F., Mausner, B. & Snyderman, B., The Motivation to Work, New York: Wiley, 1959.
- Hill, W. A. and Egan, D., Readings in Organization Theory: A Behavioral Approach, Boston: Allyn & Bacon, 1966.

- Kenniston, D., "A Second Look At the Uncommitted", Social Policy, 2, 1971, 6-19.
- Lawrence, P. R. & Lorsch, J. W., Organization and Environment, Boston: Harvard University Press, 1967.
- Likert, R., The Human Organization: Its Management and Value. New York: McGraw-Hill, 1967.
- Mayo, E., The Social Problems of an Industrial Civilization, London: Routledge & Kegan Paul, 1949.
- Merton, R.K., "Bureaucratic Structure and Personality", Social Forces, 18, 1940, 560-568.
- Miner, J.B., "Changes in Student Attitudes Toward Bureaucratic Role Prescriptions during the 1960's", Administrative Science Quarterly, 16, 1971, 227-238.
- Porter L. W. and Lawler, E. E., "Properties of Organization Structure in Relation to Job Attitudes and Job Behavior", Psychological Bulletin 64, 1965, 23-51.
- Pugh, D.S., "Modern Organization Theory: A Psychological and Sociological Study", Psychological Bulletin, 66, 1966, 235-251.
- Rossel, R. D., "Autonomy in Bureaucracies", Administrative Science Quarterly, 16, 1971, 308-315.
- Rieken, H., "A Program for Research on Experiments in Social Psychology", in N. F. Washburne (ed.), Decisions, Values and Groups, Vol. 2, New York: Pergamon Press, 1962, 25-41.
- Ryan, W. Blaming the Victim, New York: Pantheon, 1971.
- Selznick, P. "Foundations of the Theory of Organization," American Sociological Review", 13, 1948, 25-35.
- Taylor, F. W., Scientific Management, New York: Harper, 1947.
- Thompson, V.A., Modern Organization, New York: Alfred A. Knopf, 1961.
- Toffler, A., Future Shock, New York: Bantam Books, 1970.
- Weber, M., The Theory of Social and Economic Organization, Glencoe, Ill: The Free Press, 1947.
- Wilson, R. "Legitimate Power and Illegitimate Revolution: A Third World Dilemma," Journal of Applied Behavioral Science, 1974, 10, 438-50.